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Factor Structure and Psychometric Evaluation of the Hunter Cynicism Scale

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ABSTRACT - Hunter developed the Hunter Cynicism Scale (HCS) to assess cynicism, published in Wrightsman, Batson, and Edkins (2004), though no psychometric data were reported. The present study evaluated the scale's reliability and validity for research use. The 40-item HCS was administered to 185 students at two California universities, along with the Trust vs. Defensiveness subscale of the Comrey Personality Scales (CPS) and a 4-item lack-of-cynicism measure (Comrey, 1970). Item analysis, Cronbach's alpha, and factor analysis were conducted. The 40-item HCS demonstrated a reliability of .81; 35 items significantly ($p < .05$) correlated with total scores, yielding an improved alpha of .84. Factor analysis of the revised 35-item version produced five factors. Both HCS versions correlated significantly with Trust vs. Defensiveness and lack of cynicism, supporting the scale's utility for research assessing cynicism.

Keywords:
Cynicism; Individual differences; Personality assessment; Scale validation; Psychometric properties; Factor structure; Trust and defensiveness

Introduction

Cynicism is currently a frequent topic in the media, possibly due, in part, to the current world conditions. Most of these editorials and news items concern people's cynical attitude toward justice, politicians, government and big business (see Dougherty, 2010; Mooney, 2010; Sowell, 2010). Wikipedia provides those unfamiliar with the term a definition and historical development (<http://en.wikipedia.org/wiki/Cynicism>). As emotionally packed and persuasive these articles may be, they lack a psychometric and scientific definition of cynicism. That is, the term is used

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somewhat loosely without reference to how and how well cynicism is measured. Thus, it would be difficult for anyone to use any of these news articles for research purposes.

However, psychological literature has provided some insight into the measurement of Cynicism (Brockway et al., 2002), though they merely documented the number of research articles dealing with the measurement of cynicism of college students. Leung et al. (2010) and Pugh et al. (2003) have studied cynicism from the job and employment aspect. Macaskill (2007) studied cynicism along with religion and forgiveness. Hickman et al. (2004) developed a scale measuring police cynicism. However, in a popular book authored by Wrightsman et al (2004) a scale for measuring cynicism in several different areas is given. This scale was written by George Hunter at the University of Kansas. However, in the description of this scale, it is stated as “unpublished” and purported to measure cynicism toward the legal system motives of politicians, optimism, exploitation and attitudes toward corporations. However, no psychometric information or references were given to support these claims.

Since cynicism seems to be persuasive in today's world, such a scale could play an important role for any researcher looking to measure cynicism accurately. Since this scale appears in a very popular book that has collected many attitude measures and is readily accessible, this unpublished scale needs to be studied further in order to establish its psychometric properties. Hence, the goal of this brief report is to provide that information. It is not the goal of this article to talk about cynicism and the issues that surround it and how people interpret it.

The Hunter Cynicism Scale will be evaluated in terms of reliability, validity, and item analysis.

Method

Participants

One hundred and eighty-five volunteer participants were recruited from undergraduate and first year graduate students at two public universities in southern California. There were 139 females (75.1%) and 46 males (24.9%) that reported their gender. Almost 33 percent indicated they were white and 66.1% said they were nonwhite. Their ages ranged from 19 to 60 years ($M = 25.1$, $SD = 6.8$).

Measures

The Hunter Cynicism Scale is a 40-item attitude measure using a seven-point Likert response scale. The Likert scale is worded where 1 = *strongly disagree* and 7 = *strongly agree*. The 20 items from the Trust versus Defensiveness subscale of the Comrey Personality Scales were also used in this study. This scale contains an established measure of cynicism (Comrey, 1995). The 20 items used 2 different 7-point response scales. Comrey (1970) constructed two response scales whose wording fits the item better than the use of a single response scale. The first response scale uses 1 = *definitely not* to 7 = *definitely*. The second response scale is 1 = *never* to 7 = *always*. The items in the Hunter Cynicism Scale were intermixed with the 20 Trust versus Defensiveness subscale items. Four of the items constituted a measure on the “Lack of Cynicism.” These 60 items were intermixed with other non-cynicism items. A sample cynicism item is “Most people only stay in relationships if there is something in it for them.” A sample item from the CPS Trust vs. Defensiveness subscale is “Most people would cheat if they could get away with it.”

Procedure

Participants for the study were administered both the Hunter Cynicism Scale and the Trust vs. Defensiveness subscale of the CPS. They marked their responses on the instrument itself. The participants were assured of anonymity and confidentiality of their responses. The responses were then inputted into the computer for data analysis. The Trust vs. Defensiveness subscale was scored using the guidelines outlined in Comrey (1995) and Lee et al. (2010).

For the Hunter Cynicism Scale, the 20 items that were worded in the negative direction were scored by reversing the response scale. These items were 4, 6, 7, 10, 11, 12, 13, 15, 18, 19, 20, 21, 22, 26, 27, 29, 32, 35, 36 and 38. An item analysis on the Hunter Cynicism Scale (HCS) involved finding the correlations between each item and the total score. The HCS was then analyzed using Cronbach's alpha reliability coefficient and Comrey's minimum residual factor analysis with tandem criteria rotation (Comrey, 1962, Comrey, 1967, Comrey & Lee, 1992). The use of this particular combination of factor extraction and rotation is unique in that the minimum residual factor analysis method does not use communality estimates in the factor extraction process. The Tandem Criteria of analytical rotation has two steps. The first can help the researcher determine the number of factors. It is also useful in discovering the existence of a general factor. The superiority of this method of factor analysis over others is documented in Lee and Comrey (1979) and Lee (1979). For determining validity for the scale, the HCS was correlated with the Trust vs. Defensiveness subscale of the CPS and to the 4-item measure of the lack of cynicism.

Results

Reliability

The 40-item Hunter Cynicism Scale had a Cronbach alpha of .81. In an item analysis where each item was correlated to the total score for the scale, 35 item-total score correlations were statistically significant ($p < .05$). The statistically significant item-to-total correlations ranged from .23 to .64. The items that were not statistically significant and subsequently dropped from the scale were items 8, 20, 27, 30 and 40. Item 17 ("Most people will lie in court if they stand to profit from it") had the highest correlation while item 15 ("In intimate relationships people rarely 'use' each other") had the lowest correlation. The Cronbach reliability coefficient for the 35 items was .84. All remaining analyses were performed on these 35 items. This 35-item scale is referred to as the Revised Hunter Cynicism Scale.

Evidence of Validity

The 40-item total score of the HCS was correlated with the Trust vs. Defensiveness Scale of the CPS ($r = -.38, p < .01$) and the 4-item measure within the Trust vs. Defensiveness Scale that measured the lack of cynicism ($r = -.53, p < .01$). Both were statistically significant. Likewise, the 35-item Revised HCS was correlated to the CPS Trust vs. Defensiveness Scale ($r = -.35, p < .01$) and the 4-item measure of the lack of cynicism ($r = -.55, p < .01$). Both of these were also statistically significant.

Table 1: Criterion 2 rotation of 5 extracted factors for Revised Hunter Cynicism Scale

Factors and Items	Loadings
<i>I. Corporation-Political Integrity</i>	
11. Corporations are often unfairly accused of being greedy	.42
16. Most big businesses do not have much integrity	.43
18. Most expert witnesses will voluntarily present both sides of a disputed issue	.38
19. Most politicians are decent and trustworthy.	.39
21. Most big companies are honest, even if it means they won't make as much money	.58
29. I am often surprised when I hear of politicians being accused of misconduct	.64
31. In general, corporations value profit over product safety	.65
36. American corporations are generally trustworthy and honorable	.58
<i>II. Expert Witness Lies</i>	
3. In court, an expert witness will say anything as long as she or he is paid for it.	.53
13. I believe that most expert witnesses testify honestly.	.54
17. Most people will lie in court if they stand to profit from it.	.49
23. Many expert witnesses do not tell the truth, even though they are under oath.	.47
24. Politicians claim to have ethics and morals but abandon them when they aren't being watched.	.57
28. Expert witnesses almost always have information that they are hiding.	.43
33. Expert witnesses are just puppets used by attorneys.	.62
34. Most politicians will deceive people in order to get ahead.	.46
35. It is nothing unusual for people to take advantage of each other's weaknesses.	-.45
37. Lawsuits are just a way to get "easy money."	.39
38. I do not think that expert witnesses lie for their clients	.48
<i>III. Trust Others</i>	
4. Most politicians will not lie to get elected	.52
10. There is no danger in opening up to other people	.36
12. I do not think there are too many lawsuits today	.51
14. I do not believe most of the promises that public officials make	.34
15. In intimate relationships, people rarely "use" each other	.54
35. It is nothing unusual for people to take advantage of each other's weaknesses	-.34
<i>IV. Trust Corporations</i>	
6. I trust most American corporations	-.54
14. I do not believe most of the promises that public officials make	-.38
26. Most large corporations do not exploit people	-.53
36. American corporations are generally trustworthy and honorable	-.48
39. For the most part, American politicians are sleazy and crooked	-.40
<i>V. Deceptive Behavior</i>	
1. Big businesses will often engage in deceptive behavior to increase profits	.63
2. People often sue others even when they haven't been harmed or wronged	.67
5. Men and women often lie to each other to get what they want	.38
9. Politicians will take bribes as long as they don't think they'll be caught	.41
39. For the most part, American politicians are sleazy and crooked	.46

Factor Analysis

Following the reliability analyses, a minimum residual factor analysis with tandem criteria rotation (Comrey, 1962, Comrey, 1967; Comrey & Lee, 1992) was performed on the data to determine the underlying structure for the scale. This combination of factor extraction and rotation is documented in Comrey and Lee (1992). Comrey's method of minimum residual factor analysis avoids communality estimates and uses only the off-diagonal correlation of the correlation matrix in the extraction of the factors. The tandem criteria method of rotation is an orthogonal rotational method. If a higher order or general factor¹ is present, the tandem criteria method is capable of finding it.

A minimum residual factor analysis of the 35 items of the revised Hunter Cynicism Scale found 12 factors. Criterion 1 of the Comrey Tandem Criteria of factor rotation, determined that 5 factors met the requirements of retention. Criterion 1 did not detect a general factor for this scale. The 5 factors were rotated using Criterion 2 in order to approximate simple structure. Presented in Table 1 are the factors with those items that had an absolute loading value of .36 or higher.

Factor 1 contains mostly integrity attitudes toward corporations in making money and so it is named "Corporations-Integrity." The second factor contains the items most highly related to expert witnesses and is named "Expert Witness-Advantages." The third factor had the highest loadings on items involved in trusting and using other people. It is named "Trust Others." The fourth factor had the highest loadings on items involving the trust in corporations and big companies. It is named "Trust Corporations." The fifth factor consists of items involved with deceptive behaviors. It is named "Deceptive Behavior." The items and the loadings for all five factors are given in Table 1.

In addition to the 5 items dropped by the item analysis, items 7, 22, 25 and 32 had no substantial loadings (above .30) and should also be dropped from the scale. This results in a 31-item cynicism scale.

Discussion

Using a sample of college student respondents, the Revised Hunter Cynicism Scale demonstrated that it has internal consistency reliability. The Revised Hunter Cynicism Scale from this sample yields a Cronbach reliability value of .84. In an item analysis of the original 40-item scale, only 35 met the criteria of retention. The total score for the revised HCS had a -.55 correlation with a previous measure of cynicism, the 4-item total score on the Comrey Personality Scales that measured the lack of cynicism.

The current study found a 5-factor solution. This factor solution also showed that an additional 4 items can be dropped from the scale since these items did not load significantly on any of the factors. Additionally, several items were not "pure" measures. That is they had an absolute value of .30 factors loading or higher on more than one factor. Additional analyses are needed on these particular items to determine if alterations can be made so they can be a purer measure.

In Wrightsman et al (2004) this scale was described as having 5 dimensions. They report that Hunter claimed the scale consisted of a subscale called "cynical attitude toward the legal system"

(items 3, 8, 9, 17, 23, 28, 30 and 33), a second subscale called “attitudes toward politicians” (items 19, 24, 29, 34, and 39), a third called “optimism” (items 7, 15, 20, 22, 27, 32 and 38), a fourth called “cynical attitudes toward corporations” (items 1 and 16), and a fifth called “willingness to exploit” (items 25 and 35). The factor analysis in the current study found factors that approximated these dimensions specified by Hunter. However, the items that Hunter specified for defining each factor did not materialize. Some of the items either loaded with other items in defining a factor, did not load on a factor at all, or they did not pass the item analysis portion of the study for inclusion in the factor analysis. Additionally, sixteen items were not assigned to a subscale by Hunter (items 2, 4, 5, 6, 10, 11, 12, 13, 14, 18, 21, 26, 31, 36, 37, and 40).

A replication of this study using a different population of participants may show a different result. The participants in this study were college students with a gross imbalance of male-to-female and white-to-nonwhite students. This imbalance may have influenced the results of this study and needs to be addressed. Also, the sample size of 185 participants may result in correlations that are not stable (Comrey & Lee, 1992). In retrospect, the questionnaire developed for this study should have included the Validity and Response Bias scales from the CPS. This would have been able to tell us whether the responders produced valid responses and whether they were exhibiting socially desirable responses.

In conclusion, the Revised Hunter Cynicism Scale has demonstrated through its psychometric properties that it can be a very useful instrument in measuring people’s cynicism toward big business and the legal system. The authors recommend its use in research studies using normal college students where such a measure is needed. The data gathered from this study has indicated that this instrument may be best used in a population similar to the participants used in this study.

Footnotes:

1. A general factor is one where all variables have substantial loadings on the first extracted factor and all variables correlate positively to a substantial degree with each other.

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